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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,487	04/14/2006	David Neville Davies	13871US/BAT018PA	2452
58503 7590 12/29/2009 STEVENS & SHOWALTER, L.L.P. BOX BAT 7019 CORPORATE WAY DAYTON, OH 45459-4238			EXAMINER HOGAN, JAMES SEAN	
			ART UNIT 3752	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,487	<b>Applicant(s)</b> DAVIES ET AL.	
	<b>Examiner</b> JAMES S. HOGAN	<b>Art Unit</b> 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-46 and 49-67 is/are pending in the application.
- 4a) Of the above claim(s) 30-34 and 38-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-29, 35-37, 43, 46 and 49-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. A phone call on from Applicant's representative on December 17, 2009 in response to the Final Rejection of September 28, 2009 indicated that there is no record of claims 24, 25, 46, 49 and 50 as being addressed in any of the prior actions. Upon investigation, it has been determined that the Examiner rejected the subject matter of claims 49 and 50 in the rejection of claim 51. The error has been corrected, and the case has been returned to non-final status. Claim 46, is, and has been rejected with claims 54 and 55 below. The rejection of claims 24 and 25 has been attached with the rejection of claim 22. The Examiner sincerely apologizes for the discrepancy.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 22-25, 29, 35, 43, 46, 54-56, and 63-67 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,684,879 to Coffee et al.

As per claim 22 and 25, Coffee et al discloses in Figure 2, means for supplying liquid (from (8)) to an outlet (at (11)), an electrical discharge means (12) including means (7a) for coupling the electrical discharge means to a first potential (from (7)) and for coupling the outlet (11) to a second, different, potential (from (5)) for causing an

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electric field to be generated at said outlet to produce a dispersion of aroma-providing droplets from liquid issuing from the outlet and for producing at the electrical discharge means ions to at least partially electrically discharge the dispersion, wherein said one of said outlet and said electrical discharge means is coupled to said first potential via a resistance (Col. 2, lines 55-Col. 3, line 2, Figure 6, resistor (R) ), the coating of the electrode being what supplies the resistance, the resistance as part of .

As per claim 23, the coupling means, as cited, include a couple to earth.

As per claim 24, the electrical discharge means (12) is shown, via (7a) and other wiring to be grounded (See Figure 3).

As per claim 29, as shown in Figure 2, then electrical discharge means (11) surround the liquid outlet.

As per claim 35, a resistance couples the outlet to a first potential (at 12), with the coating on the electrode (12) providing the resistance.

As per claim 43, a control is disclosed for enabling the device to be activated in a predetermined manner (SW1, SW2) which can be at a predetermined time via a delay (120).

As per claims 46, 54, and 55 the embodiment shown in Figure 11 discloses a plurality of liquids (8) and means for controlling the liquids at different times, as the delay (120) is schematically coupled to only one pump and reservoir

As per claim 56, a flexible reservoir is disclosed (Col. 5, line 6)

As per claim 63, the device of Coffee et al is shown being carried by a person (Figure 1).

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As per claims 64-67, Coffee et al teaches its device being used with olfactory stimuli and suppressants (Col. 1, lines 5-9).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 26, 27, 37, 60 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee et al.

3. The rejection of claim 22 serves as the basis for the following.

4. As per claims 26, 27, 37, 49, Coffee et al is silent as to the resistance of a plausible component resistor but does teach a desired resistivity of a coating on an electrode to create the same result of 500 mega ohms with the coating being  $5 \times 10^{11}$  Ohms per centimeter of coating at 2mm thick. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted a component resistor of the desired resistivity range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering a workable range involves only routine skill in the art. See in *re Aller*, 105 USPQ 233.

5. As per claim 60 and 62, there is no teaching of the device of Coffee et al being placed on a tabletop or in use with a motor vehicle, however, as the device is being shown being carried by a person in Figure 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have placed the device of

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Coffee et al on a surface after its use, on a table or in the interior of a known motor vehicle.

6. Claims 28, 36, 49-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee et al in view of U.S. Patent 5,655,517 to Coffee.

7. The rejection of claim 22 serves as the basis for the following.

8. As per claims 28, 36 and 49-53 Coffee et al teaches all the limitations of the claims except for qualifying the resistance of the liquid in the use of an electrostatic sprayer, that resistance being variable. However, Coffee discloses (Col. 2, line 56-58) such a use, with the resistance being variable (as per claim 50), by nature, based on the amount of liquid available in a reservoir, with no liquid providing zero resistance. Any liquid added, making the resistance greater than zero. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Coffee et al with a resistance measurement as suggested by Coffee. Doing so would provide more precise spraying and because (a) the Coffee et al reference and the Coffee reference are *known work in one of field of endeavor*, (b) such modification is merely the use of known technique to improve a similar device by Applicant and (c) such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense. *KSR, International Co. v. Teleflex Inc.*, 550 U.S. (2007).

9. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee et al in view of U.S. Patent No. 4,095,596 to Grayson.

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10. The rejection of claim 56 above serves as the basis for the following.

11. Coffee et al teaches all the limitations of the claims except for a frangible seal with a reservoir. However, Grayson discloses a frangible ampoule or reservoir (See Abstract). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Coffee et al with a single use frangible reservoir as suggested by Grayson. Doing so would provide a disposable system and because (a) the Coffee et al reference and the Grayson reference are *known work in one of field of endeavor*, (b) such modification is merely the use of known technique to improve a similar device by Applicant and (c) such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense.

*KSR, International Co. v. Teleflex Inc., 550 U.S. (2007).*

12. Claim 58, 59 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee et al in view of U.S. Patent No. 6,602,475 to Chiao.

13. The rejection of claim 22 serves as the basis for the following.

14. As per claims 58, 59, and 61 there is no teaching by Coffee et al for the use of its device in combination with a various multimedia systems. Chiao teaches scent dispersion by electrostatic means in combination with a barcode reader (Col. 5, line 55-64) as well as with a home entertainment system by way of DVD's and personal computers (i.e. internet) (Col. 8, lines 50-61). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Coffee et al with various multimedia combinations as suggested by Chiao. Doing so would provide an

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improved multimedia experience and because (a) the Coffee et al reference and the Chiao reference are *known work in one of field of endeavor*, (b) such modification is merely the use of known technique to improve a similar device by Applicant and (c) such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense. *KSR, International Co. v. Teleflex Inc.*, 550 U.S. (2007).

15. Claim 64 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee et al in view of U.S. Patent No. 5,655,517 to Coffee.

16. The rejection of claim 22 serves as the basis for the following.

17. As per claims 64 and 65, there is no teaching by Coffee et al for the use of its device with insecticides or insect repellant. However, Coffee discloses the use of an electrostatic sprayer to dispense aromas (qualifying as insect repellants) and insecticides (Co. 2, line 64-68). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Coffee et al with an additional dispensing uses as suggested by Coffee. Doing so would provide an improved form of insect control and because (a) the Coffee et al reference and the Coffee reference are *known work in one of field of endeavor*, (b) such modification is merely the use of known technique to improve a similar device by Applicant. and (c) such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense. *KSR, International Co. v. Teleflex Inc.*, 550 U.S. (2007).



***Conclusion***

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. HOGAN whose telephone number is (571)272-4902. The examiner can normally be reached on Mon-Fri, 6:00a-3:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. H./  
Examiner, Art Unit 3752  
/Len Tran/  
Supervisory Patent Examiner, Art Unit 3752